DOSSIER: FOOD

Improving Africa's rice crop

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The lorry driver in Sierra Leone is talking about the cost of living. Take rice for example. The price of a bag of rice has doubled in the past few years, it now costs him about half a month's pay. He shrugs, how can a man feed his family any more? Then he grins, at least, he says, he has security, a government job.

The lorry driver's problem is shared by millions of people throughout West Africa, many of them less fortunate than he. It is a problem that seriously concerns the governments of many countries in the region, and its causes are simple. Rice is a staple food in West Africa, and demand outstrips the locally grown supply by about 600,000 tons a year. In 1974 rice imports to make up that deficit cost West African countries almost $240 million, pushing up the price in the market place, and putting an additional strain on the region's scarce foreign exchange reserves.

The irony is that the ecological conditions in much of the region are ideally suited to rice production. But the governments of the region are doing something about the rice shortage. They have banded together to form WARDA — the West African Rice Development Association — with one purpose in mind: to make West Africa self-sufficient in rice.

Founded in 1971, the Association today has 14 members: Benin, The Gambia, Ghana, Guinee Bissau, Ivory Coast, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Togo and Upper Volta. The Association's Executive Secretary, Jacques Diouf, says WARDA is unique — it is organized and managed by Africans for the benefit of Africans. Its policies are set by a Governing Council composed of one representative from each member country, and each country contributes to the core budget, with additional support, where necessary, coming from donor countries (such as Saudi Arabia and the USA) and from international agencies.

From the start WARDA has taken an integrated approach, concentrating its efforts on three fronts: research, training and development. One of the first things they found out, says Mr. Diouf, was that there were an awful lot of gaps in existing research. So a network of 30 trial points was built up to test varieties from within the region and all over the world under different ecological conditions. First, however, they had to develop their own quarantine procedures at IITA (the International Institute of Tropical Agriculture in Nigeria) in order to meet the Organization of African Unity's regulations governing the importing of new plant varieties. A seed laboratory was also established, and African personnel trained to run it.

Four main rice types were identified in the region — mangrove rice, deep flood or floating rice, rain-fed rice and irrigated rice. This last is the subject of WARDA's newest research effort, and follows on the recommendations of Dr. Robert Chandler, former head of IRRI (the International Rice Research Institute in the Philippines), who was retained by the IDRC to assist WARDA and help establish links with both IRRI and ITTA.

Dr. Chandler confirmed what the people who founded WARDA already believed — that the region could produce far more rice. He recommended adapting some of the established rice varieties developed at IRRI, along with some of their highly successful cropping systems. This is the basic aim of the IDRC-supported irrigated rice project that is now getting underway in Senegal.

At Fanaye near the Richard Toll agricultural research station on a tributary of the Senegal River a 25-hectare site is being prepared for the project. The site is unique in one respect — it contains no less than seven different types of topsoil, ranging from alluvial clay to light sandy soil, that were deposited there over the centuries by the repeated flooding of the river during the rainy seasons.

The river no longer overflows its banks, but it will provide irrigation for the experimental rice crops. Over the next two years the researchers will test and select a number of high-yielding, early maturing rice varieties; develop fertilizer and water management systems for the various soil types; and carry out pest, disease and weed control studies — all on the one site.

Four young African scientists have already received training at IRRI in preparation for working on the project, and four more will soon complete similar courses. Throughout its life the project will also serve to train more African personnel. Training is an important part of WARDA's work, says Mr. Diouf. The Association is establishing a training centre at its headquarters in Monrovia. A specialized training course is held each year dealing with a different theme, and a 6-month course in rice production has been developed in cooperation with IRRI. The Association also makes scholarships available to West African scientists to enable them to receive further training, either in West Africa, or anywhere in the world where specialized courses are available.

In the field of rice development, WARDA has established a regional seed multiplication program, offers advice to national programs in member countries, and has organized a number of regional seminars on rice-related topics. Equally important is the documentation centre, with its computerized indexing system, and a communications unit for translating and disseminating documents. There is even a language laboratory for staff language training — the aim is eventually to have a fully bilingual staff who can operate in either French- or English-speaking West African countries.

What about results? Is that bag of rice soon going to take a smaller bite out of the average West African's pay? It is too early yet, says Mr. Diouf, to attribute definite results to WARDA's work. But he points out that four of the 14 member countries were actually in a position to export rice in 1975. Now the Association is looking at questions of trade between member countries in order to cut down on those costly rice imports from outside. □